

COMMERCIAL ITEM DESCRIPTION
SPECIFICATION SHEET

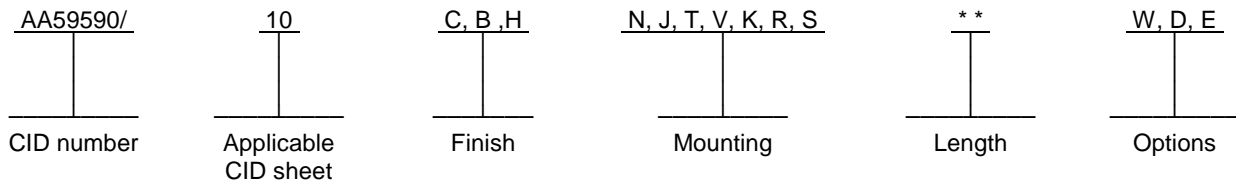
HOLDERS, ELECTRICAL CARD, WEDGE RETAINERS, 3 PIECE, SCREW ACTUATED DRIVE,
.220 X .220 INCH BODY SIZE, WITH VISUAL LOCK INDICATION AND SCREW RETENTION

The General Services Administration has authorized the use of this
commercial item description (CID) for all federal agencies.

The complete requirements for procuring electrical card holders described herein shall consist of this document and
the latest issue in effect of A-A-59590.

SCOPE. This CID specification sheet covers 3 piece card holders with a visual locking indicator feature that use
screw actuated wedges to hold circuit card assemblies into their installed positions in heat sinking devices (cold
plates, heat exchanger) or other applications. Card holders covered by this CID are intended to provide 60g/6ms
resistance to shock, withstand 25 G-rms of vibration and provide 2 to 4 degrees C/W/inch thermal resistance
between the circuit card assemblies and the heat sink surfaces. Items covered by this CID specification sheet are
intended for commercial/industrial applications.

CLASSIFICATION. This CID specification sheet uses a classification system which is included in the Part
Identification Number (PIN) as shown in the following example (see notes).



SALIENT CHARACTERISTICS.

Performance. Card holders shall hold the circuit card firmly in place providing high resistance to shock and vibration
while providing maximum thermal transfer. Card holders shall have a visual indicator to show when the assembly is
in its relaxed (unlocked) state.

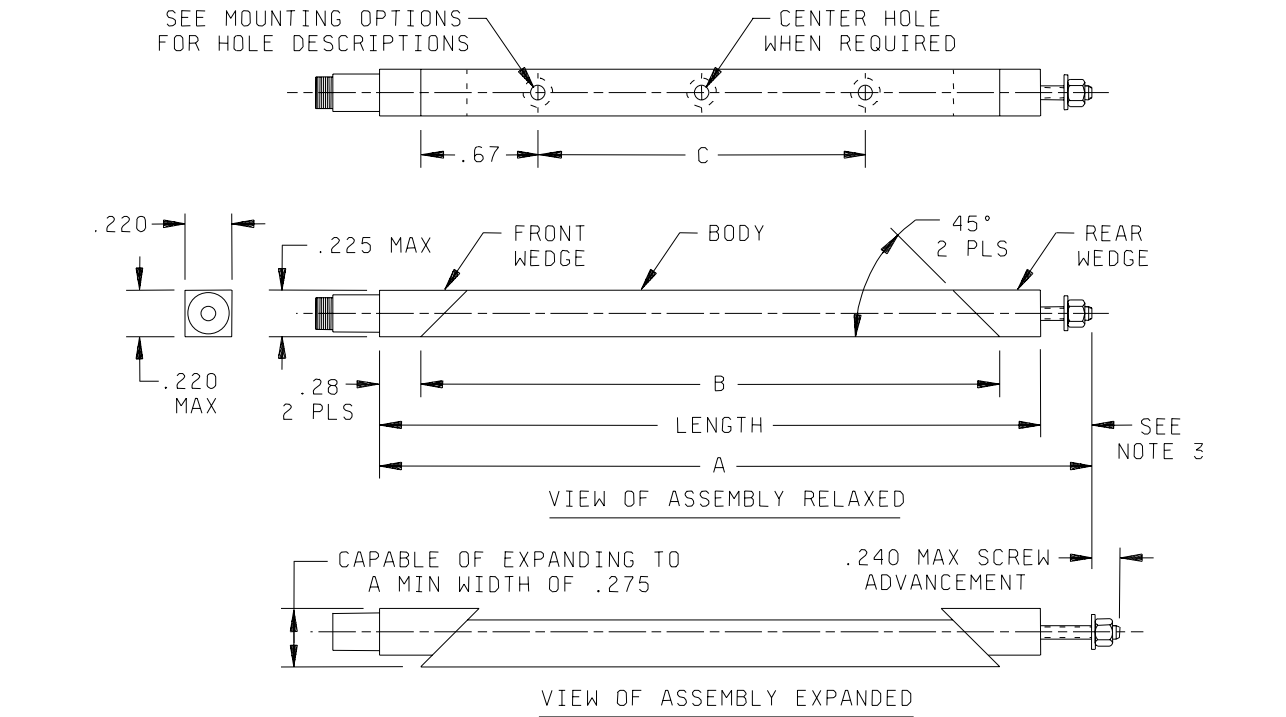
Interface and physical dimensions. The card holders supplied to this CID specification sheet shall be as specified
herein and the general CID.

Expanded and relaxed dimensions. Expanded and relaxed dimensions shall be as specified in figure 1.

Mounting options. The mounting options shall be as specified in A-A-59590.

Mounting holes (when required). Two mounting holes are required on card holders less than 6.00 inches (152.4
mm) in length. Three mounting holes are required on card holders 6.00 inches or greater in length. The third
mounting hole shall be centered on the mounting body. See table I and figure 1 for mounting hole spacing
requirements.

A-A-59590/10



Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
.220	5.6	.225	5.72	.240	6.09	.275	6.99	.28	7.1	.67	17.0

NOTES:

1. Dimensions are in inches. Metric equivalents are given for information only.
2. Unless otherwise specified, tolerances are $\pm .02$ (0.5 mm), for 2 places and $\pm .010$ (0.25 mm), for 3 places.
3. Dimension shall be .20 (5.1 mm) maximum on assemblies without options "W" or "D" and .30 (7.6 mm) maximum on assemblies with options "W" or "D".

FIGURE 1. Assembly configuration and dimensions.

TABLE I. Additional assembly dimensions (see figure 1).

PIN length designator	Dimension "LENGTH" $\pm .02$ (0.5)	Dimension "A" (maximum)		Dimension "B" $\pm .03$ (0.8)	Dimension "C" $\pm .005$ (0.13)
		Without options "W" or "D"	With options "W" or "D"		
28	2.8 (71)	3.10 (78.7)	3.20 (81.3)	2.24 (56.8)	.90 (22.9)
30	3.0 (76)	3.30 (83.8)	3.40 (86.4)	2.44 (62.0)	1.10 (27.9)
35	3.5 (89)	3.80 (96.5)	3.90 (99.1)	2.94 (74.7)	1.60 (40.6)
38	3.8 (97)	4.10 (104.1)	4.20 (106.7)	3.24 (82.3)	1.90 (48.3)
48	4.8 (122)	5.10 (129.5)	5.20 (132.1)	4.24 (107.7)	2.90 (73.7)
53	5.3 (135)	5.60 (142.2)	5.70 (144.8)	4.74 (120.4)	3.40 (86.4)
55	5.5 (140)	5.80 (147.3)	5.90 (149.9)	4.94 (125.5)	3.60 (91.4)
58	5.8 (147)	6.10 (154.9)	6.20 (157.5)	5.24 (133.1)	3.90 (99.1)

Visual lock indicator (see figure 2). When the card holder is in the unlocked (relaxed) state, the end of the actuating screw shall display a red band on the side of the screw. When the actuating screw on the card holder has been tightened (assembly expanded) so that the assembly is in the locked position, this red band shall be concealed.

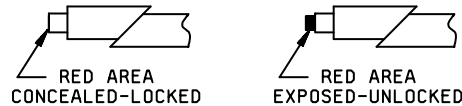


FIGURE 2 Visual lock indicator.

Screw retention (locknut). The screw retention feature intended to prevent unintentional disassembly of the card holder shall be as specified in figure 3. The locknut shall be fabricated of a corrosion resistant material.

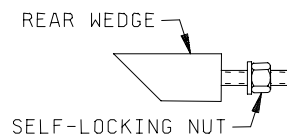


FIGURE 3. Screw retaining self-locking nut (corrosion resistant) details.

Options. Card holders can have the following options. Card holders not requiring one of the following options shall leave the options position in the PIN blank.

Lockwasher and flat washer (see figure 4). A lockwasher and flat washer located under the screw head will provide for additional resistance to loosening from shock and vibration. Card holders requiring a lockwasher and flat washer option shall include a suffix "W" in the PIN (see classification and notes).

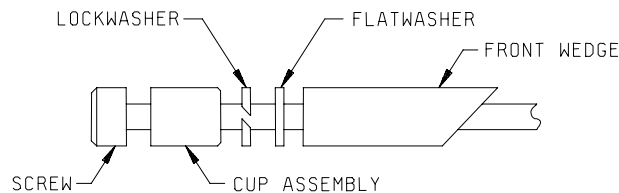


FIGURE 4. Lockwasher and flat washer details.

Screw self-locking element (see figure 5). The use of a screw self-locking element will provide prevailing torque for resistance to loosening from shock vibration. Card holders requiring a screw self-locking element shall include a suffix "E" in the PIN (see classification and notes).

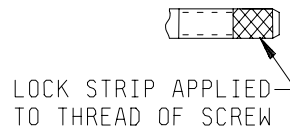


FIGURE 5. Screw self-locking element details.

Lockwasher, flat washer, and screw self-locking element. Card holders requiring a lockwasher, flat washer, and screw self-locking element option shall include a suffix "D" in the PIN (see classification and notes).

NOTES.

PIN. The PIN should be used for government purposes to buy commercial products to this CID specification sheet. See the classification section for PIN format example.

Commercial products. As part of the market analysis and research effort, this CID specification sheet was coordinated with the following manufacturers of commercial products. At the time of CID specification sheet preparation and coordination, these manufacturers were known to have commercial products that would meet the requirements of this CID specification sheet. (NOTE: This information should not be considered as a list of approved manufacturers or be used to restrict procurement to only the manufacturers shown.)

<u>Manufacturer CAGE</u>	<u>Manufacturer name and address</u>	<u>Manufacturer contact information</u>
18915	APW Electronic Solutions 14100 Danielson Street Poway, CA 92064-6898	Tel: (858) 679-4550 Toll Free: (800) 854-7086 Fax: (858) 679-4555 E-mail: sales.electronicsolutions@apw.com URL: www.apw.com
52094	Calmark Corporation 4915 Walnut Grove Avenue San Gabriel, CA 91776-2099	Tel: (626) 287-0451 Fax: (626) 287-7350 E-mail: sales@calmark.com URL: www.calmark.com

Part number supersession data. This CID specification sheet part numbers supersedes the following manufacturer's part numbers as shown. This information is being provided to assist in reducing proliferation in the Government inventory system.

TABLE II. Commercial part number supersession data. 1/

PIN designator AA59590/10	Vendor similar designator or type part number 2/ CAGE 18915	Vendor similar designator or type part number 2/ CAGE 52094
CJ28	42VI-6-LN	V230CR2.80HR
CN28	42VI-6-LN-A	V230CR2.80R
CT28	42VI-6-LN-T	V230CR2.80T0R
CV28	42VI-6-LN-S	V230CR2.80T2R
CJ28E	42VI-6-LN-L	V230CR2.80HLR
CN28E	42VI-6-LN-A-L	V230CR2.80LR
CT28E	42VI-6-LN-T-L	V230CR2.80T0LR
CV28E	42VI-6-LN-S-L	V230CR2.80T2LR
CJ28W	42VI-6-LF-LN	WV230CR2.80HR
CN28W	42VI-6-LF-LN-A	WV230CR2.80R
CT28W	42VI-6-LF-LN-T	WV230CR2.80T0R
CV28W	42VI-6-LF-LN-S	WV230CR2.80T2R
CJ28D	42VI-6-LF-LN-L	WV230CR2.80HLR
CN28D	42VI-6-LF-LN-A-L	WV230CR2.80LR
CT28D	42VI-6-LF-LN-T-L	WV230CR2.80T0LR
CV28D	42VI-6-LF-LN-S-L	WV230CR2.80T2LR

See footnotes at end of table.

TABLE II. Commercial part number supersession data. 1/ – Continued.

PIN designator AA59590/10	Vendor similar designator or type part number 2/ CAGE 18915	Vendor similar designator or type part number 2/ CAGE 52094
BJ28	42VI-6-B-LN	VA230CR2.80HR
BN28	42VI-6-B-LN-A	VA230CR2.80R
BT28	42VI-6-B-LN-T	VA230CR2.80T0R
BV28	42VI-6-B-LN-S	VA230CR2.80T2R
BJ28E	42VI-6-B-LN-L	VA230CR2.80HLR
BN28E	42VI-6-B-LN-A-L	VA230CR2.80LR
BT28E	42VI-6-B-LN-T-L	VA230CR2.80T0LR
BV28E	42VI-6-B-LN-S-L	VA230CR2.80T2LR
BJ28W	42VI-6-B-LF-LN	WVA230CR2.80HR
BN28W	42VI-6-B-LF-LNA	WVA230CR2.80R
BT28W	42VI-6-B-LF-LNT	WVA230CR2.80T0R
BV28W	42VI-6-B-LF-LNS	WVA230CR2.80T2R
BJ28D	42VI-6-B-LF-LNL	WVA230CR2.80HLR
BN28D	42VI-6-B-LFLNAL	WVA230CR2.80LR
BT28D	42VI-6-B-LFLNLT	WVA230CR2.80T0LR
BV28D	42VI-6-B-LFLNSL	WVA230CR2.80T2LR
HJ28	42VI-6-B3-LN	VHA230CR2.80HR
HN28	42VI-6-B3-LN-A	VHA230CR2.80R
HT28	42VI-6-B3-LN-T	VHA230CR2.80T0R
HV28	42VI-6-B3-LN-S	VHA230CR2.80T2R
HJ28E	42VI-6-B3-LN-L	VHA230CR2.80HLR
HN28E	42VI-6-B3-LN-A-L	VHA230CR2.80LR
HT28E	42VI-6-B3-LN-T-L	VHA230CR2.80T0LR
HV28E	42VI-6-B3-LN-S-L	VHA230CR2.80T2LR
HJ28W	42VI-6-B3-LF-LN	WVHA230CR2.80HR
HN28W	42VI-6-B3-LF-LNA	WVHA230CR2.80R
HT28W	42VI-6-B3-LF-LNS	WVHA230CR2.80T0R
HV28W	42VI-6-B3-LF-LNT	WVHA230CR2.80T2R
HJ28D	42VI-6-B3-LFLNL	WVHA230CR2.80HLR
HN28D	42VI-6-B3LFLNAL	WVHA230CR2.80LR
HT28D	42VI-6-B3LFLNLT	WVHA230CR2.80T0LR
HV28D	42VI-6-B3LFLNSL	WVHA230CR2.80T2LR

1/ CID PINs listed only with length designator “28”.

2/ The manufacturer's part number shall not be used for procurement to the requirements of this CID specification sheet. At the time of preparation of this CID specification sheet, the aforementioned commercial products were reviewed and could be replaced by the CID PIN shown. For actual part marking requirements, see the marking paragraph of the basic CID.

TABLE III. Example of PIN with available length designators.

PIN designator AA59590/10	Vendor similar designator or type part number <u>1/</u> CAGE 18915	Vendor similar designator or type part number <u>1/</u> CAGE 52094
CJ28	42VI-6-LN	V230CR2.80HR
CJ30	42-1084-3.00-LN	V230CR3.00HR
CJ35	42-1084-3.50-LN	V230CR3.50HR
CJ38	42VI-8-LN	V230CR3.80HR
CJ48	42VI-10-LN	V230CR4.80HR
CJ53	42-1084-5.30-LN	V230CR5.30HR
CJ58	42-1084-5.80-LN	V230CR5.80HR

1/ The manufacturer's part number shall not be used for procurement to the requirements of this CID specification sheet. At the time of preparation of this CID specification sheet, the aforementioned commercial products were reviewed and could be replaced by the CID PIN shown. For actual part marking requirements, see the marking paragraph of the basic CID.

MILITARY INTERESTS:

Custodians:
 Army – CR
 Navy – EC
 Air Force – 11
 DLA – CC

CIVIL AGENCY COORDINATING ACTIVITY:

GSA – 7FXE
 Preparing Activity
 DLA – CC
 Project 5998-0106